ENVIRONMENTAL COMPLIANCE SUMMARY

CALENDAR YEAR 1998

Compliance Program

Currently the primary focus of the West Valley Demonstration Project (WVDP) is on completing the removal and vitrification of the liquid high-level radioactive mixed waste remaining in underground high-level waste tanks at the site. Vitrification incorporates high-level radioactive and hazardous materials into a glass-like substance that is safe for disposition at a long-term geologic repository. The treatment process is regulated by various federal and state laws that protect the public, workers, and the environment.

The U.S. Department of Energy (DOE), the federal agency that oversees the WVDP, established its policy concerning environmental protection in DOE Order 5400.1, General Environmental Protection Program. This Order lists the regulations, laws, and required reports that are applicable to DOE-operated facilities. DOE Orders 5400.1 and 231.1, Environment, Safety, and Health Reporting, require the preparation of this annual Site Environmental Report, which is intended to summarize environmental data gathered during the calendar year, describe significant programs, and document WVDP compliance with environmental regulations.

The major federal environmental laws and regulations that apply to the West Valley Demonstration Project are the Resource Conservation and Recovery Act, the Clean Air Act, the Emergency Planning and Community Right-to-Know Act, the Clean Water Act, the Safe Drinking Water Act, the Toxic Substances Control Act, and the National Environmental Policy Act. These laws are administered primarily by the U.S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC) through state programs and regulatory requirements such as permitting, reporting, inspecting, and auditing.

In addition, because the emission of radiological and nonradiological materials from an active facility cannot be completely prevented, the EPA, NYSDEC, and the DOE have established standards for such emissions that are intended to protect human health and the environment. The WVDP applies to NYSDEC and the EPA for permits that allow the site to release limited amounts of radiological and nonradiological constituents through controlled and monitored discharges into water and air. These concentrations have been determined to be safe for humans and the environment.

In general, the permits describe the discharge points, specify management and reporting requirements, list the limits on those pollutants likely to be present, and define the sampling and analysis schedule.

Environmental inspections and audits are conducted routinely by the EPA, NYSDEC, the New York State Department of Health (NYSDOH), and the Cattaraugus County Health Department. On-site and off-site radiological monitoring in 1998 confirmed that site activities were conducted well within state and federal regulatory limits.

On-site nonradiological effluent monitoring confirmed that site effluents remained within permitted limits. In one instance, because of the emission of nitrous oxide, a regulatory standard for opacity at the main stack was exceeded. However, this release was below the federally enforced emissions limit for nitrous oxide approved for the WVDP. (This exceedance of a nonradiological standard is described in more detail under the Clean Air Act section [p.ECS-8].) Although the exceedance did not have any significant adverse environmental effects, the WVDP continues to make efforts to eliminate the potential for any reoccurrence.

Management at the WVDP continued to provide strong support for environmental compliance issues in 1998. Through the integrated safety management system (ISMS) process, DOE Orders and applicable state and federal statutes and regulations are integrated into the compliance program at the Project, demonstrating a commitment to protecting the public and the environment while working towards the WVDP goal of high-level radioactive mixed waste vitrification.

Compliance Status

The following environmental compliance summary describes the federal and state laws and regulations that are applicable to the WVDP and the relevant environmental compliance activities that occurred at the WVDP in 1998.

Resource Conservation and Recovery Act (RCRA). The Resource Conservation and Recovery Act was enacted to ensure that hazardous wastes are managed in a manner that protects human health and the environment. RCRA and its implementing regulations govern hazardous waste generation, treatment, storage, and disposal.

RCRA regulations mandate that generators take responsibility for ensuring the proper treatment, storage, and disposal of their wastes. The EPA is the federal agency responsible for issuing guidelines and regulations for the proper management of solid and hazardous waste.

In New York, the EPA has delegated the authority to enforce these regulations, including the radioactive and hazardous mixed waste program, to NYSDEC. In addition, the U.S. Department of Transportation (DOT) is responsible for issuing guidelines and regulations for the labeling, packaging, and spill-reporting provisions for hazardous and mixed wastes while in transit.

Each facility that treats, stores (large quantities for more than 90 days), or disposes of hazardous waste at that facility must apply for a permit from the EPA (or authorized state). The permit defines the treatment processes to be used, the design capacities, the location of hazardous waste storage units, the design and operating criteria for disposal units, and the hazardous wastes to be handled.

In 1984 the DOE notified the EPA of hazardous waste activities at the WVDP and identified the WVDP as a generator of hazardous waste. In June 1990 the WVDP filed a Part A Hazardous Waste Permit Application with NYSDEC for storage and treatment of hazardous wastes. Based on that application, the WVDP was granted interim status.

The WVDP continues to update the RCRA Part A Permit Application as changes to the site's interim-status waste-management operations occur. The last update occurred in October 1995. No updates to the Part A Permit Application were necessary in 1998.

Hazardous Waste Management Program. Hazardous wastes at the WVDP are managed in accordance with 6 NYCRR (New York Official Compilation of Codes, Rules, and Regulations) Parts 371-376. In order to dispose of hazardous wastes generated from on-site activities, the WVDP uses New York State-permitted transporters (pursuant to 6 NYCRR Part 364) to ship RCRA-regulated wastes to permitted or authorized treatment, storage, or disposal facilities (TSDFs), pursuant to 6 NYCRR Part 373-1. Using these services, the WVDP shipped approximately 22.4 metric tons (24.7 tons) of nonradioactive, hazardous waste off-site in 1998. Increases in the amount of hazardous waste shipped in 1998 as compared to 1997 are from the disposition of outdated, off-specification, and surplus materials. Of this amount, 1.2 metric tons (1.3 tons) were recycled by the treatment, storage, and disposal facilities.

Off-site hazardous waste shipments and their receipt at designated TSDFs are documented by signed manifests that accompany the shipment. If the signed manifest is not returned to the WVDP within the regulatory limit of forty-five days from shipment, an exception report must be filed and receipt of the waste confirmed with the TSDF. No exception reports for WVDP waste shipments were required to be filed in 1998.

Hazardous waste activities must be reported to NYSDEC every year through the submittal of an annual Hazardous Waste Report. This report summarizes the hazardous waste activities for the previous year, specifies the quantities of hazardous waste generated, treated, and/or disposed, and identifies the TSDFs used. The calendar year 1998 annual Hazardous Waste Report was submitted to NYSDEC on March 1, 1999.

In addition, a hazardous waste reduction plan must be filed every two years and updated annually. These plans document efforts to minimize the generation of hazardous waste and were first submitted to NYSDEC in 1990. The most recent Annual Status Report for the Hazardous Waste Reduction Program was submitted in June 1998. The next update is due July 1999.

An annual inspection to assess compliance with hazardous waste regulations was conducted by NYSDEC on March 20, 1998. The most recent EPA inspection occurred on September 16, 1998. No deficiencies were noted by either agency during the inspections.

Nonhazardous, Regulated Waste Management Program. The WVDP transported approximately 288 metric tons (318 tons) of nonradioactive, nonhazardous material off-site to solid waste management facilities in 1998. Of this amount, 6.3 metric tons (6.9 tons) were recycled or reclaimed. Some of the regulated materials managed as recyclable materials were lead acid batteries from which the lead was reclaimed and nonhazardous oils, which were recycled at off-site authorized reclamation and recycling facilities. The WVDP also shipped approximately 593 metric tons (654 tons) of digested sludge and untreated wastewater from the site sanitary and industrial wastewater treatment facility to the Buffalo Sewer Authority for treatment. The decreased quantity of wastewater shipped in 1998 (compared to 2,305 metric tons [2,541 tons] shipped in 1997) is in large part the result of improved temperature controls and treatment efficiency at the WVDP sanitary and industrial wastewater treatment facility.

Radioactive Mixed Waste Management Program. Radioactive mixed waste (RMW) contains both a radioactive component, regulated under the Atomic Energy Act, and a hazardous component, regulated under RCRA. Both the EPA and NYSDEC oversee RMW management at the WVDP. To address the management of the hazardous component of radioactive mixed waste, in March 1993 the DOE entered into a Federal and State Facility Compliance Agreement (FSFCA) with the EPA, NYSDEC, the New York State Energy Research and Development

Authority (NYSERDA), and West Valley Nuclear Services Company (WVNS), the primary contractor for the DOE at the WVDP. The FSFCA addressed requirements for managing the hazardous component of the radioactive mixed waste: regulatory compliance with the Land Disposal Restrictions (LDR) of RCRA for radioactive mixed waste specifies particular storage requirements for RMW and requires the characterization of historical wastes in storage at the WVDP.

In August 1997 a one-year extension of the FSFCA was requested to provide the additional time needed to characterize waste stored in the chemical process cell waste storage area. In November 1997 NYSDEC granted a one-year extension exclusively for section 7.2, Waste Analysis, to complete the final characterization of the containers. Characterization of historical wastes was completed and the FSFCA agreement terminated on March 22, 1999.

The Federal Facility Compliance Act (FFCAct) of 1992, an amendment to RCRA, was signed into law on October 6, 1992. The FFCAct requires DOE facilities to develop treatment plans for radioactive mixed waste inventories and to enter into agreements with the regulatory agencies that require the treatment of the inventories according to the approved plans.

DOE facilities were required to develop site treatment plans in three steps: conceptual, draft, and proposed. The WVDP's conceptual plan was submitted to NYSDEC in October 1993, the draft plan in August 1994, and the proposed site treatment plan in March 1995.

The proposed plan is comprised of two volumes: The Background Volume provides information on each radioactive mixed waste stream and information on the preferred treatment method for the waste; the Plan Volume contains proposed schedules for treating the radioactive mixed waste to meet the LDR requirements of RCRA. Each submittal to NYSDEC underwent a public comment period during which input was solicited from WVDP stakeholders.

The DOE and NYSDEC entered into a consent order on September 3, 1996, that requires the completion of the milestones identified in the Plan Volume. The WVDP began implementing the Site Treatment Plan immediately and updates it annually to bring waste stream and inventory and treatment information current to the end of the fiscal year. An update of fiscal year 1998 activities was completed in February 1999. All Plan Volume milestones for fiscal year 1998 were met.

Shipments of radioactive mixed waste to off-site facilities for treatment and their receipt at the designated TSDF are documented via manifests. In 1998 the WVDP shipped approximately 4.0 metric tons (4.4 tons) of radioactive mixed waste to an off-site facility.

RCRA Facility Investigation Program. The DOE and NYSERDA entered into a RCRA 3008(h) Administrative Order on Consent with NYSDEC and the EPA in March 1992. The Consent Order required NYSERDA and the DOE's West Valley Demonstration Project Office (OH/WVDP) to conduct RCRA-facility investigations (RFIs) at solid waste management units (SWMUs) in order to determine if there has been a release or if there is a potential for release of RCRA-regulated hazardous waste or hazardous constituents from SWMUs. Because of the proximity of some of the units to each other, twenty-five SWMUs were grouped into twelve super solid waste management units (SSWMUs) to facilitate investigative efforts under the RFI program.

In general, the purpose of a RCRA facility investigation is to collect and evaluate information to determine which of the following actions are appropriate for each SWMU or SSWMU in accordance with the Consent Order: no further action; a corrective measures study; or additional investigations to support either no further action or a corrective measures study.

To define and assess the environmental settings, unit and waste characteristics, and the potential sources and extent of nonradiological contamination, the WVDP reviewed existing information and collected and analyzed samples of surface soil, subsurface soil, sediment, and groundwater.

The last of the draft RFI reports were made final in 1997 after EPA and NYSDEC review. Of the twelve SSWMUs, five have been identified as requiring no further action: #2, miscellaneous small units; #6, the low-level waste storage area; #7, the chemical process cell waste storage area; #10, the radwaste treatment system drum cell; and #12, the hazardous waste storage lockers.

The seven remaining SSWMUs have been identified as requiring no immediate action other than continued groundwater monitoring: #1, the low-level waste treatment facility; #3, the liquid waste treatment system; #4, the high-level waste storage and processing area; #5, the maintenance shop leach field; #8, the construction and demolition debris landfill; #9, the Nuclear Regulatory Commission (NRC)-licensed disposal area (NDA); and #11, the New York State-licensed disposal area (SDA).

In addition to the twelve SSWMUs, sixteen rooms previously used during nuclear fuel reprocessing operations were evaluated in May 1994 under the RFI program, as required by the Consent Order. In December 1994 NYSDEC and the EPA reviewed the evaluation and issued a determination of no further action for eight of the rooms. At the same time, NYSDEC and the EPA requested additional information on the remaining eight rooms. In February 1995 the WVDP provided the requested information. On January 28, 1998 the EPA and NYSDEC completed their evaluation and concluded that the remaining rooms do not pose a significant threat of a release of hazardous waste or hazardous constituents.

With the submittal of the final RFI reports in 1997 and the determination for the sealed rooms, the site completed the investigation activities associated with the Consent Order. The WVDP continued in 1998 to monitor and evaluate SWMUs to ensure compliance with the requirements of the RCRA 3008(h) Administrative Order on Consent.

Waste Minimization and Pollution Prevention. The WVDP continued a long-term program to minimize the generation of low-level radioactive waste, radioactive mixed waste, hazardous waste, industrial waste, and sanitary waste and to promote affirmative procurement as directed by Executive Order 12856 (Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements), Executive Order 12873 (Federal Acquisition, Recycling, and Waste Prevention), and the new, 1998 Executive Order 13101 (Greening the Government through Waste Prevention, Recycling, and Federal Acquisition), which promotes the Affirmative Procurement Program (APP).

The APP specifies responsibilities and direction for federal agencies in acquiring recycled and environmentally preferable products and services designated by the EPA in 40 CFR Part 247. WVNS reports its challenges and successes associated with the purchase and use of these materials and services to the DOE each year.

Waste streams on-site are separated into either waste from sources directly associated with the vitrification process or other nonvitrification sources. Using 1993 waste-generation rates as a baseline for comparison, the WVDP plans to reduce the generation of low-level radioactive waste, radioactive mixed waste, and nonvitrification hazardous waste by 50% by December 31, 1999. The WVDP plans to reduce the generation of sanitary waste and nonvitrification industrial waste by 30% by the same date.

Toward that end, the WVDP set the following cumulative waste-reduction goals for 1998: a 42% reduction in the generation of low-level radioactive waste, radioactive mixed waste, and hazard-

ous waste; a 26% reduction in nonvitrification industrial waste; and a 22% reduction in sanitary waste.

The waste-reduction goals for wastes associated with vitrification operations were an 18% reduction in vitrification hazardous waste and a 12% reduction in vitrification industrial waste, compared to an annualized 1996 total of waste generated.

Progress toward meeting or exceeding most waste-reduction goals was excellent during calendar year 1998. Low-level radioactive waste generation was reduced by 86%, radioactive mixed waste generation by 81%, and vitrification hazardous waste generation by 59%. In a similar manner, nonvitrification industrial waste generation was reduced by 40% and sanitary waste generation by 67%.

The amount of nonvitrification-related acidic/caustic hazardous waste generated in 1998 was reduced by 34% through the use of elementary neutralization. Because of the large amount of acidic descaling solution generated, the reduction of this waste was less than desired. Similarly, the amount of vitrification-related industrial waste was reduced by only 7%. The effective use of elementary neutralization in treating acid and caustic hazardous waste resulted in a greater quantity of industrial waste.

Specific accomplishments in waste minimization and pollution prevention during 1998 included the following:

- 101.8 metric tons (112.2 tons) of paper were recycled

- 88.0 metric tons (97.0 tons) of galvanized steel, carbon steel, and stainless steel were recycled

- 8.7 metric tons (9.6 tons) of metal 55-gallon drums were emptied, cleaned, and either reused on-site or sent off-site for recycling

- 36.3 metric tons (40.0 tons) of concrete support piers were sent off-site to a local municipality for use in erosion control

- 90.7 metric tons (100.0 tons) of nonradioactive vitrification test glass were sent off-site to an asphalt vendor for use as aggregate

- 166.6 metric tons (183.7 tons) of scrap lumber were collected and donated to local not-for-profit and educational institutions for reuse

- excess stocks of mercury thermometers were donated to a local university's chemistry department for reuse

- 16.5 metric tons (18.2 tons) of wooden pallets were taken by a vendor for recycling

- used lead-acid batteries were recycled

- extra materials in controlled storage were made available in October 1998 to WVDP employees for reuse on-site, and materials with a total value of more than $31,000 were subsequently used.

Underground Storage Tanks Program. RCRA regulations also cover the use and management of underground storage tanks and establish minimum design requirements in order to protect groundwater resources from releases. The regulations, specified in 40 CFR Part 280, require underground storage tanks to be equipped with overfill protection, spill prevention, corrosion protection, and leak detection systems. New tanks must comply with regulations at the time of installation.

New York State also regulates underground storage tanks through two programs, petroleum bulk storage (Title 6 NYCRR, Parts 612 - 614) and chemical bulk storage (6 NYCRR, Parts 595 - 599). The state registration and minimum design requirements are similar to those of the federal program except that petroleum tank fill ports must be color-coded using American Petroleum Insti-

tute standards to indicate the product being stored. The WVDP does not use underground chemical bulk storage tanks.

A 550-gallon underground storage tank is used to store diesel fuel for the standby power supply for the supernatant treatment ventilation blower system. This tank, a double-walled steel tank with an interstitial leak detection system, is filled by a metered delivery system and is monitored through daily gauging and monthly reconciliations. It does not require tightness or integrity testing because of its integral leak detection system. The tank is equipped with aboveground piping and has an overflow catch basin at the fill port. System improvements implemented in 1998 included a new leak detection system and a high-level warning device. The 1998 improvements and upgrades have brought the 550-gallon tank into compliance with the most recent EPA requirements (40 CFR Part 280.21), which went into effect on December 22, 1998.

A former underground petroleum-storage tank, closed in place before the New York State underground storage tank program closure requirements were implemented in 1985, was removed in 1997. Testing of soils from the tank excavation had shown evidence of earlier petroleum leakage: investigations continued in 1998. (See Petroleum-Spill Reporting/Underground Storage Tanks, p.ECS-19.)

New York State-regulated Aboveground Storage Tanks. The state of New York regulates aboveground petroleum bulk storage under 6 NYCRR Parts 612, 613, and 614. Aboveground hazardous bulk chemical storage is regulated by New York State under 6 NYCRR Part 595 et seq. These regulations require secondary containment, external gauges to measure the current reserves, monthly visual inspections of petroleum tanks, and documented daily, annual, and five-year inspections of chemical tanks. Petroleum tank fill ports also must be color-coded and chemical tanks labeled to indicate the product stored.

WVDP registration at the end of 1998 included nine aboveground petroleum tanks and fourteen aboveground chemical storage tanks. Three of the petroleum tanks contain No. 2 fuel oil, one contains unleaded gasoline, and the remainder contain diesel fuel. Eleven of the chemical storage tanks contain nitric acid or nitric acid mixtures. Sulfuric acid, sodium hydroxide, and anhydrous ammonia are stored in the remaining three tanks. All of the tanks are equipped with gauges and secondary containment systems except the anhydrous ammonia tank, for which secondary containment is not required. (Any release of the contents of the anhydrous ammonia tank would be in gaseous form, thus making secondary containment unnecessary.)

The Quality Assurance department inspects the aboveground petroleum tanks every month. In December 1998 all aboveground chemical storage tanks were inspected to fulfill the requirements for annual inspection (6 NYCRR Part 598.7(c)). The ammonia tank was inspected in December 1998 to meet the five-year inspection requirements of 6 NYCRR Part 598.7(d). No violations were noted during the inspection. Documentation relating to these periodic inspections is maintained by the WVDP and is available for regulatory agencies to review.

Medical Waste Tracking. Medical waste poses a potential for exposure to infectious diseases and pathogens from contact with human bodily fluids. Medical evaluations, inoculations, and laboratory work at the on-site nurse's office regularly generate potentially infectious medical wastes that must be tracked in accordance with NYSDEC requirements (6 NYCRR Part 364.9). The WVDP has retained the services of a permitted waste hauler and disposal firm to manage these medical wastes.

Medical wastes are sterilized with an autoclave by the disposal firm to remove the associated hazard and then disposed. Twelve kilograms (26 lbs) of medical waste consisting of dressings and

protective clothing such as rubber gloves, and needles, syringes, and other sharps were generated and disposed in 1998.

Clean Air Act (CAA). The Clean Air Act as amended in 1990, including Titles I through VI, establishes a framework for the EPA to regulate air emissions from both stationary and mobile sources. These amendments mandate that each state establish a program to permit the operation of sources of air pollution. In 1996 NYSDEC amended 6 NYCRR Parts 200, 201, 231, and 621 to implement the requirements of the new EPA Clean Air Act Title V permitting processes.

In New York State, either the EPA or NYSDEC issues permits for stationary sources emitting regulated pollutants, including hazardous air pollutants. Sources requiring permits are those that emit regulated pollutants in quantities above a predetermined threshold that are from a particular source such as a stack, duct, vent, or other similar opening. WVDP radiological emissions are regulated by the EPA, and all other air pollutants are regulated by NYSDEC.

Air emissions of radionuclides from point sources at the WVDP are regulated by the EPA under the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations, 40 CFR Part 61, Subpart H, National Emission Standards for Emission of Radionuclides Other Than Radon From Department of Energy Facilities. The WVDP currently has permits for six radionuclide sources, including the slurry-fed ceramic melter and the vitrification heating, ventilation, and air conditioning (HVAC) system. Other less significant sources of radionuclide emissions, such as those from the on-site laundry, do not require permits. Non-point radiological sources of emissions such as lagoons and soil piles also do not require permits. Emissions from all these sources are quantified for reporting to the EPA. The WVDP reports the radionuclide emissions from its non-permitted and permitted sources to the EPA annually in accordance with NESHAP regulations. Calculations to demonstrate compliance with NESHAP radioactive dose limits showed 1998 doses to be less than 0.4% of the 10 millirem standard.

Nonradiological point sources of air emissions are regulated by NYSDEC. Major-source facilities are required by 6 NYCRR Part 201 to file a Title V permit application, unless operating limits are established, to ensure that the facility does not emit pollutants above the threshold limits. WVDP emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO_2) are each capped at 100 tons per year. Thus, the WVDP is not required to file a Title V permit.

In lieu of a Title V permit application, the WVDP opted to file a State Facility Permit Application for the site. A State Facility Permit Application containing data on two new boilers was filed in October 1997 and approved in January 1998. A State Facility Permit modification to include all remaining WVDP air emission sources was submitted in December 1997, and the WVDP is awaiting approval of this permit. Under the new State Facility Permit, compliance will be based on site-wide limits for all regulated constituents, and the totals for all will be recorded annually in an air emissions inventory.

Existing certificate-to-operate permits (COs) are in effect until the State Facility Permit modification is approved by NYSDEC. The WVDP has a total of seven COs for nonradiological point sources. (During 1998 seven COs were removed from service or were exempted from the permitting requirements of NYSDEC.)

The WVDP submits quarterly reports to NYSDEC that contain NO_x and SO_2 total emissions data. NO_x emissions (8.9 tons) and SO_2 emissions (0.3 tons) were well below the 100-ton cap for each category. The WVDP also conducts cylinder gas audits every quarter and annual relative accuracy test audits of the melter off-gas

NO_x analyzers to establish compliance with the Capping Plan approved by NYSDEC on July 28, 1995.

On April 15, 1998, the WVDP exceeded the opacity standard established by 6 NYCRR 212.6(a) for approximately twelve minutes. This exceedance was reported to NYSDEC. It was calculated that approximately sixteen pounds of nitrous oxide were emitted during this time. The release did not exceed the NO_x permit limits approved by NYSDEC for the WVDP and was not considered a threat to human health or the environment. No emergency response actions were required. There were no other exceedances in 1998.

EPCRA 302-303:			
Planning Notification	[√] Yes	[ ] No	[ ] Not Req.
EPCRA 304:			
EHS Release Notification	[ ] Yes	[ ] No	[√] Not Req.
EPCRA 311-312:			
*MSDS/Chemical Inventory	[√] Yes	[ ] No	[ ] Not Req.
EPCRA 313:			
TRI Reporting	[√] Yes	[ ] No	[ ] Not Req.

** Material Safety Data Sheet*

The air permits that were in effect at the WVDP in 1998 are listed in Appendix K, Table K-3 (pp. K-5 and K-6).

Emergency Planning and Community Right-to-Know Act (EPCRA). The Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted as Title III of the Superfund Amendments and Reauthorization Act (SARA). EPCRA was designed to create a working partnership between industry, business, state and local governments, public health and emergency response representatives, and interested citizens. EPCRA is intended to address concerns about the effects of chemicals used, stored, and released in local communities.

Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, requires all federal agencies to comply with the following EPCRA provisions: planning notification (Sections 302 - 303), extremely hazardous substance (EHS) release notification (Section 304), material safety data sheet (MSDS)/chemical inventory (Sections 311 - 312), and toxic release inventory (TRI) reporting (Section 313). The WVDP continued to comply with these provisions in 1998 as indicated in the table above.

- WVDP representatives participated in semi-annual meetings of the Cattaraugus County Local Emergency Planning Committee (EPCRA Section 302 - 303). WVDP representatives also attended numerous meetings held by the Cattaraugus and Erie County Emergency Management Services concerning WVDP and other local emergency planning activities. Area hospitals, a helicopter ambulance service (Mercy Flight), and the West Valley Volunteer Hose Company continued to participate in on-site training drills and in information exchanges involving management of hazardous substances at the WVDP.

- Compliance with all EPCRA reporting requirements was maintained and all required reports were submitted within the required time frame. There were no releases of extremely hazardous substances at the WVDP that triggered the release notification requirements of Section 304 of EPCRA.

- Under EPCRA Section 311 requirements, the WVDP reviews information about reportable

chemicals every quarter. If a hazardous chemical, which was not previously reported, is present on-site in an amount exceeding the threshold planning quantity, an MSDS and an updated hazardous chemical list is submitted to the state and local emergency response groups. This supplemental reporting continues to ensure that the public and the emergency responders have current information about hazardous chemicals at the WVDP. No new chemicals were added to the hazardous chemicals list in 1998, and no additional EPCRA Section 311 notifications were required.

- Under EPCRA Section 312 regulations, the WVDP submits annual reports to state and local emergency response organizations and fire departments that specify the quantity, location, and hazards associated with chemicals stored on-site. The number of reportable chemicals did not change between 1997 and 1998: sixteen reportable chemicals above threshold planning quantities were stored at the WVDP in 1998.

- Under EPCRA Section 313 requirements, the WVDP submitted a toxic release inventory report to the EPA in 1998 for three chemicals (nitric acid, ammonia, and nitrate compounds).

- All notifications required under SARA regulations were submitted ahead of schedule.

Clean Water Act (CWA). Section 402 of the Clean Water Act of 1972, as amended, authorizes the EPA to regulate discharges of pollutants to surface water and groundwater through a National Pollutant Discharge Elimination System (NPDES) permit program. The EPA has delegated this authority to the state of New York, which issues State Pollutant Discharge Elimination System (SPDES) permits for discharges to surface water and groundwater.

Section 404 of the CWA regulates the development of areas in and adjacent to the waters of the United States. Supreme Court interpretations of Section 404 have resulted in the inclusion of wetlands in the regulatory definition of waters of the United States.

While Section 402 generally regulates disposal of liquids, Section 404 regulates the disposal of solids, in the form of dredged or fill material, into these areas by granting the U.S. Army Corps of Engineers the authority to designate disposal areas and issue permits for these activities. Executive Order 11990, Protection of Wetlands, directs federal agencies to "avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practical alternate." (Article 24 of the New York State Environmental Conservation Law also contains requirements for the protection of freshwater wetlands.)

In addition, Section 401 of the CWA requires applicants for a federal license or permit pursuant to Section 404 to obtain certification from the state that the proposed discharge complies with effluent and water quality-related limitations, guidelines, and national standards of performance identified under sections 301, 302, 303, 306, 307, and 511(c) of the CWA. The EPA has delegated administration of this program to New York State.

SPDES-permitted Outfalls. Point-source liquid effluent discharges to surface waters of New York State are permitted through the New York SPDES program. The WVDP has four SPDES-permitted outfalls that discharge to Erdman Brook and Frank's Creek.

- Outfall 001 (WNSP001) discharges treated wastewater from the low-level waste treatment facility (LLWTF) and the north plateau groundwater recovery system. (See North Plateau Groundwater Recovery [p.ECS-12] and Chapter 3, Groundwater Monitoring, Special Groundwater Monitoring, p.3-15). The treated wastewater is held in lagoon 3, sampled and analyzed, and periodically released after notifying NYSDEC.

In 1998 the treated wastewater from the LLWTF was discharged at WNSP001 in six batches totaling 43.5 million liters (11.5 million gal) for the year. The annual average concentration of radioactivity at the point of release was approximately 23% of the DOE derived concentration guides (DCGs). None of the individual releases exceeded the DCGs. (See *derived concentration guide* in the Glossary.)

- Outfall 007 (WNSP007) discharges the effluent from the site sanitary and industrial wastewater treatment facility, which treats sewage and various nonradioactive wastewaters from physical plant systems (e.g., water plant production residuals and boiler blowdown). The average daily flow at WNSP007 in 1998 was 39,600 liters (10,500 gal).

- Outfall 008 (WNSP008) discharges groundwater and storm water flow directed from the northeast side of the site's LLWTF lagoon system through a french drain. The average daily flow at WNSP008 in 1998 was 7,300 liters (1,900 gal).

- Monitoring point 116, located in Frank's Creek, represents the confluence of discharge from outfalls 001, 007, and 008; base stream flow; wet weather flows (e.g., storm water runoff); groundwater surface seepage; and augmentation water (i.e., untreated water from the site reservoirs). This is not a physical outfall but a location chosen for monitoring in order to demonstrate compliance during discharge of lagoon 3. Before discharge of lagoon 3, sample data for total dissolved solids (TDS) and flow measurements from upstream sources are used to calculate the amount of augmentation water and flow needed to maintain compliance with SPDES-permitted TDS limits.

During calendar year 1998 there were no SPDES permit limit excursions. (See Clean Water Action Plan Initiatives at the WVDP, p.ECS-18.)

On March 19, 1998 NYSDEC conducted its annual facility inspection. At the request of the inspector, the SPDES outfalls, the sanitary and industrial wastewater treatment facility, and the LLWTF were observed. No violations were noted during the inspection.

The WVDP obtained storm water characterization data through sampling and analysis and in March 1996 submitted an application for a SPDES permit modification to increase the average flow of effluent from the north plateau groundwater recovery system from approximately 9.8 million liters (2.6 million gal) a year to approximately 39.7 million liters (10.5 million gal) a year. (See the discussion of North Plateau Groundwater Recovery [p.ECS-12].) NYSDEC issued the draft SPDES permit in June 1997 for public comment. The final permit is expected to be issued to the WVDP in 1999.

Wetlands. In the summer of 1998 a wetlands assessment was conducted to identify and delineate jurisdictional wetlands regulated under the Clean Water Act, Section 404, and/or those wetlands that may be regulated by the state of New York under Article 24 of the Environmental Conservation Law. The 375-acre assessment area covered a portion of the Western New York Nuclear Service Center (WNYNSC), including the entire 220-acre WVDP and adjacent parcels north, south, and east of the WVDP premises. The assessment also supported the requirements of Executive Order 11990, Protection of Wetlands. This assessment updated a 1993 investigation.

Clean Water Act Section 404 jurisdictional wetlands are defined as those satisfying specific technical criteria related to vegetation, soils, and hydrologic conditions. Using these criteria, fifty-nine jurisdictional wetlands ranging in size from 0.01 acres to 8.6 acres were identified, a total of approximately 39 acres of wetland.

The WVDP notifies the U.S. Army Corps of Engineers and NYSDEC of proposed actions that have the potential to affect any of the fifty-nine wetland units and that are not specifically ex-

empted from regulation or notification. In 1998 there were no actions requiring the Corps of Engineers or NYSDEC to be notified under the provisions of the wetlands regulatory programs.

North Plateau Groundwater Recovery. In November 1995 the WVDP installed a groundwater recovery system to mitigate the movement of strontium-90 contamination in the groundwater northeast of the process building. Three recovery wells, installed near the leading edge of the groundwater plume, collect contaminated groundwater from the underlying sand and gravel unit. The recovery system uses ion-exchange to remove strontium-90 from the groundwater and the groundwater is then treated in the new LLW2. After the groundwater is processed, it is normally discharged to lagoon 4 or 5 near the LLW2. Approximately 54 million liters (14.3 million gal) of groundwater have been processed through the system since its inception, including about 17 million liters (4.4 million gal) in 1998.

The Project began evaluating a new in-place treatment technology, permeable treatment wall (PTW) technology, for treating contaminated groundwater. PTW technology is a passive treatment method, i.e., neither pumps nor a separate water treatment system are used. Rather, contaminants are removed from the groundwater as it flows through a trench filled with treatment media. Laboratory benchscale tests were initiated in December 1998 to further examine this technology for removal of strontium-90 in WVDP groundwater. A pilot-scale field deployment may be implemented in 1999.

Petroleum- and Chemical-Product Spill Reporting. The WVDP has a Spill Notification and Reporting Policy to ensure that all spills (see Glossary) are properly managed, documented, and remediated in accordance with applicable regulations. This policy identifies the departmental responsibilities for spill management and presents the proper spill-control procedures. The policy stresses the responsibility of each employee to notify the main plant operations shift supervisor upon discovery of a spill. This first-line reporting requirement helps to ensure that spills are properly evaluated and managed.

Under a June 1996 agreement with NYSDEC regarding the agency's petroleum spill-reporting protocol, the WVDP is not required to report spills of petroleum products of 5 gallons or less onto an impervious surface that are cleaned up within two hours of discovery. Spills onto the ground of petroleum products of 5 gallons or less are entered in a monthly petroleum spill log. Spills of any amount that travel to waters of the state must be reported immediately to the NYSDEC spill hotline and entered in the monthly log. Spills of petroleum products that enter any navigable waters of New York State are reported to the National Response Center within two hours of discovery. Each monthly petroleum spill log is submitted to NYSDEC on the fifteenth day of the following month. In addition to the NYSDEC spill- and release-reporting regulations, the WVDP also reports spills of hazardous substances in accordance with the reporting requirements of RCRA, the CAA, EPCRA, the CWA, and the Toxic Substances Control Act (TSCA).

Two minor spills of petroleum were reported in 1998, both occurring on the same day in January. The first spill discovered was less than a gallon of diesel fuel released through a leak in a portable truck-mounted tank. Minutes later, the second spill was discovered — approximately one-quarter cup of diesel fuel had been released from a vehicle onto a paved roadway in another area of the site. In each case, rain carried a portion of the spill into a nearby storm drain. Upon discovery of the spills, absorbent wipes were used to clean up the remaining fuel from the pavement and absorbent booms were placed around the storm drain near the larger spill. NYSDEC was notified of the spills within one hour of their discovery; NYSDEC's response was that no further actions were required. Both spills were entered into the monthly spill report sent to the

NYSDEC Region 9 office. No other immediate notifications relating to petroleum spills were required during 1998.

No chemical spills or releases exceeded the reportable quantities and, therefore, no spills required immediate reporting. All spills that occurred during 1998 were cleaned up in a timely fashion in accordance with the WVDP Spill Notification and Reporting Policy, thereby minimizing any effects on the environment. Debris generated during cleanup activities was characterized and dispositioned appropriately.

Safe Drinking Water Act (SDWA). The Safe Drinking Water Act (SDWA), as amended in 1996, requires that each federal agency having jurisdiction over a federally owned or maintained public water system must comply with all federal, state, and local requirements regarding safe drinking water. Compliance with regulations promulgated under the SDWA in the state of New York is overseen by the New York State Department of Health (NYSDOH) through county health departments.

The WVDP obtains its drinking water from surface water reservoirs on the WNYNSC and is considered a non-transient, noncommunity public water supplier. The WVDP's drinking water treatment facility purifies the water by clarification, filtration, and chlorination before it is distributed on-site.

As an operator of a drinking water supply system, the WVDP routinely collects drinking water samples to monitor water quality. The results of these analyses are reported to the Cattaraugus County Health Department. The Cattaraugus County Health Department also independently collects a sample of WVDP drinking water every month to determine bacterial and residual chlorine content. Analysis of the microbiological samples collected in 1998 produced satisfactory results and the free chlorine residual measurements taken throughout the distribution system were positive on all occasions, indicating proper disinfection.

The WVDP regularly samples and tests the site's drinking water for lead and copper in accordance with EPA and NYSDOH regulations. Sampling for lead and copper in 1998 indicated that all results were below the action levels for these metals. If the 1999 results are below the action levels for lead and copper, regulations will allow the WVDP to reduce sampling to every three years.

The Cattaraugus County Health Department conducted its annual inspection of the WVDP water supply system on October 30, 1998. No findings or notices of violation were issued.

Toxic Substances Control Act (TSCA). The Toxic Substances Control Act (TSCA) of 1976 regulates the manufacture, processing, distribution, and use of chemicals, including asbestos-containing materials (ACMs) and polychlorinated biphenyls (PCBs). Because PCBs are a hazardous waste in New York State, the WVDP continued in 1998 to manage radioactively contaminated PCB wastes as radioactive mixed wastes. Details concerning PCB-contaminated radioactive waste management, including a description of the waste and proposed treatment technologies and schedules, can be found in section 3.1.5 of the Site Treatment Plan, Fiscal Year 1998 Update (West Valley Nuclear Services Co., Inc. February 1999).

To comply with TSCA, all operations associated with PCBs comply with the PCB and PCB-Contaminated Material Management Plan (West Valley Nuclear Services Co., Inc. December 28, 1998). The WVDP also maintains an annual document log that details PCB use and appropriate PCB waste storage on-site and any changes in storage or disposal status. In August 1996 the DOE and the EPA entered into a Federal Facility Compliance Agreement on Storage of Polychlorinated Biphenyls, which allowed PCB wastes to be stored for more than the one-year statutory

limit for storage under TSCA. This agreement terminated with the promulgation of EPA 40 CFR Parts 750 and 761, Disposal of Polychlorinated Biphenyls (PCBs), effective August 28, 1998, which allows PCB wastes to be stored for more than one year. The WVDP is complying with these new regulations.

During December 1997 and January 1998 the WVDP Waste Operations department completed an inspection of the asbestos-management program. Results of the inspection will be included in the 1999 update to the WVDP Asbestos Management Plan.

In 1998 the WVDP also continued to maintain compliance with all TSCA requirements for asbestos by managing asbestos-containing materials (ACMs) at the site in accordance with the Asbestos Management Plan (West Valley Nuclear Services Co., Inc. May 1, 1996). The plan includes requirements for limiting worker exposure to ACMs, requirements for asbestos-abatement projects, maintenance activities, and periodic surveillance inspections (at least once every three years). The plan also identifies the inventory and status of on-site ACMs.

Activities in 1998 included the repair or abatement of damaged/friable ACMs, removal of roofing materials containing asbestos, and the maintenance of signs and labels to warn workers of asbestos-containing materials. All activities associated with ACMs are completed by personnel who are certified by the New York State Department of Labor (NYSDOL). WVNS maintains an asbestos-handling license issued by NYSDOL.

National Environmental Policy Act (NEPA). The National Environmental Policy Act (NEPA) of 1969, as amended, establishes a national policy to ensure that protection of the environment is included in federal planning and decision making (Title I). Its goals are to prevent or eliminate potential damage to the environment that could arise from federal legislative actions or proposed federal projects. The President's Council on Environmental Quality (CEQ), established under Title II of NEPA, sets the policy for fulfilling these goals. The CEQ regulations for implementing NEPA are promulgated at 40 CFR Parts 1500 - 1508.

The DOE began revising its NEPA-compliance procedures and guidelines in 1990. On May 26, 1992 the President's Council on Environmental Quality approved the DOE's NEPA procedures, which are promulgated as regulations at 10 CFR Part 1021. In July 1996 the DOE amended the NEPA regulations.

NEPA requires that all federal agencies proposing actions that have the potential to significantly affect the quality of human health and the environment prepare detailed environmental statements. The DOE implements NEPA by requiring an environmental review of all proposed actions (10 CFR Part 1021). The DOE's NEPA procedures are a hierarchical system of assessment for reviewing and documenting proposed actions commensurate with the action's potential for affecting the environment. The levels of review and documentation are: no impact and a categorical exclusion (CX); potential impact and an environmental assessment (EA); and significant impact and an environmental impact statement (EIS). (See the Glossary at the back of this report for definitions of *categorical exclusion*, e*nvironmental assessment*, and *environmental impact statement*.)

Several actions at the WVDP were reviewed and approved in 1998 under the DOE's NEPA-implementing regulations. The following proposed actions were categorically excluded:

- ventilation improvements to the main plant equipment decontamination room
- construction of a new counting room in an existing site structure
- relocation of the blueprint reproduction facility

- site routine maintenance activities
- transfer of the supercompactor to the Savannah River site
- upgrade of the utility room hypochlorite feed system
- upgrade of the maintenance building heating, ventilation, and air conditioning (HVAC) system
- installation of a decontamination equipment trailer for radiological response
- management of mixed low-level waste in accordance with the WVDP Site Treatment Plan
- upgrade of the equalization basin for site sanitary wastewater treatment system
- replacement of the lag storage area #4 enclosure.

Since the Record-of-Decision for the 1982 final environmental impact statement (EIS) for long-term management of high-level radioactive waste at West Valley (U.S. Department of Energy June 1982), modifications to operations and activities at the WVDP have been made in order to improve operations and to mitigate potentially adverse environmental effects.The DOE's NEPA-implementing regulations require the preparation of a Supplement Analysis if there are substantial changes to a proposed action or if significant new circumstances or information relevant to environmental concerns have emerged after an environmental impact statement (EIS) is made final. The regulations also require a review of an EIS once every five years to verify its continued adequacy.

In 1993 the DOE issued its first Supplement Analysis of the 1982 final EIS to re-examine ongoing high-level waste solidification activities as well as actions within ancillary facilities. The DOE thereafter confirmed the validity of the environmental analyses in the final EIS and determined that a Supplemental EIS was not required. In June 1998 the DOE prepared and published a second Supplement Analysis of the 1982 final EIS. The Supplement Analysis identified the following operations as refinements of the actions originally evaluated in the 1982 final EIS:

- removal, washing, and solidification of the high-level waste tank heel
- decontamination and disposition of vitrification equipment
- retrieval of waste from the head end cells
- construction and operation of a high-level waste canister ship-out facility
- construction and operation of a facility for managing remote-handled waste
- off-site disposal of hazardous waste, radioactive mixed waste, and low-level waste
- packaging of transuranic (TRU) waste for interim storage or disposal
- shipping spent fuel for interim storage at the Idaho National Engineering and Environmental Laboratory (INEEL)
- repair and maintenance of the WNYNSC rail spur.

(Definitions of *remote-handled waste*, *hazardous waste*, *mixed waste*, *low-level waste*, *transuranic waste*, and *spent fuel* are provided in the Glossary.)

The 1998 Supplement Analysis discussed these refinements of the actions originally evaluated in the 1982 final EIS and concluded that no environmentally relevant or substantial changes in Project scope had occurred and that no significant new circumstances or newly relevant information existed. It also confirmed that the environmental

analyses performed for the 1982 final EIS are still valid. The Ohio Field Office approved the Supplement Analysis in June 1998. In their approval the Field Office agreed with the conclusions of the 1998 Supplement Analysis and issued their determination that a Supplemental EIS is not required.

Activities continued in 1998 in support of the Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of Facilities at the Western New York Nuclear Service Center.

The Citizen Task Force issued the West Valley Citizen Task Force Final Report on July 29, 1998. This report provides recommendations and advice on the development of a preferred alternative for the completion of the WVDP and WNYNSC closure or long-term management. The preferred alternative is being developed and is scheduled to be completed in 1999; the final EIS is scheduled to be issued in 2000.

The NRC, as a cooperating agency in this EIS and as part of its responsibilities under the WVDP Act, issued SECY-98-251, Decommissioning Criteria for West Valley, on October 30, 1998. This document proposed decommissioning criteria for the WVDP and the WNYNSC and identified potential alternatives that may be necessary to ensure acceptable long-term control and care of the site. The NRC staff presented SECY-98-251 to the NRC Commissioners for review and approval. The DOE, NYSERDA, NYSDEC, and the Citizen Task Force were invited to a briefing in January 1999 to discuss their issues and concerns.

In May 1997 DOE Headquarters issued the Final Waste Management Programmatic Environmental Impact Statement to evaluate nationwide management and siting alternatives for the treatment, storage, and disposal of five types of radioactive and hazardous waste. The alternatives are for waste generated from operations over the next twenty years at fifty-four sites in the DOE complex. The final EIS was issued with the particular intent of developing separate waste form-specific records of decision and issuing these in sequence.

In 1998 two Records of Decision were issued: On January 20 DOE Headquarters issued the Record of Decision for the DOE's Waste Management Program for Treatment and Storage of Transuranic Waste, and on August 5 the DOE issued the Record of Decision for the Treatment of Non-wastewater Hazardous Waste. The decisions specific to WVDP wastes included continuing to use off-site facilities for the treatment of non-wastewater hazardous waste and preparation and storage of transuranic waste on-site before disposal. (Currently there is no transuranic waste-disposal facility identified to accept WVDP-generated transuranic waste.) The preferred alternatives for other WVDP wastes include: off-site treatment of low-level mixed waste and disposal at one of two or three regional disposal sites; on-site treatment of low-level waste and shipment for disposal to one of two or three regional disposal sites; and on-site storage of WVDP vitrified high-level waste pending disposal in an off-site geologic repository.

Summary of Permits

The environmental permits that were in effect at the WVDP in 1998 are listed in Appendix K, Table K-3 (pp.K-5 and K-6).

Current Achievements and Program Highlights

Significant environmental initiatives, compliance successes, new site programs, and challenges and events that occurred in 1998 and continued in 1999 are summarized below.

Completion of Phase I of Vitrification. The first phase of high-level waste vitrification was completed in June 1998. Phase I of the vitrification campaign at the WVDP began on June 24, 1996, when the first transfer of high-level radioactive waste from the underground storage tanks was completed. During the following two years 210 canisters were filled with vitrified high-level waste and placed into storage. The next phase of vitrification is expected to continue into 2001. During this phase, high-level wastes remaining in the bottom 10 inches of the underground tanks will be transferred to the vitrification system. Waste in the grid-like structure on the bottom of the tanks may be dislodged by a combination of high-pressure water spray nozzles or other removal tools on mechanical arms or by chemical washing.

Implementation of an Integrated Safety Management System. A plan to integrate environmental, safety, and health (ES&H) management procedures at the WVDP was developed and implemented in 1998. Implementation included writing an ES&H management system description, developing two new site-specific procedures, and integrating more than thirty key procedures. One of the more important areas identified for improvement in order to successfully implement an integrated environmental, safety, and health management system was the enhanced work planning (EWP) program, which closely matches the core elements of an integrated safety management system (ISMS). (See Glossary.) In pursuit of improvement, a site-wide work review group (WRG) was established. This cross-functional group reviews work plans for safety, health, and environmental concerns and comments on proposed work documents. The initiation of the WRG, along with other improvements such as up-front worker involvement, satisfied EWP and ISMS requirements, and the Project's EWP and ISMS received verification from the DOE Ohio Field Office in December 1998.

Environmental Management System. Environmental management at the WVDP is integral to ISMS core components at the site. WVNS has in place an environmental management system (EMS) that integrates various components of programs designed to limit environmental harm from Project activities. The EMS is described in WVNS Environmental Management System (West Valley Nuclear Services Co., Inc. February 1998b). Existing procedures implemented within the environmental management system provide the basic policy and direction for proactive management, environmental stewardship, and the integration of appropriate technologies across all Project functions.

The WVNS EMS is based upon the Code of Environmental Management Principles for Federal Agencies (CEMP), developed by the EPA, and upon ISO (International Organization for Standardization) 14001, Environmental Management Systems - Specifications for Guidance and Use. Both the CEMP and ISO 14001 promote guiding principles and the development of performance drivers to continually improve environmental performance.

The WVNS EMS provides that effects of Project activities on the environment be considered; identifies practices that eliminate or minimize negative effects; includes monitoring and compliance with all applicable environmental laws, regulations, and requirements; and requires the management of programs, projects, and activities in a manner that protects the environment and public health. Any potential threats to the environment from planned work are evaluated through environmental assessments (EAs) or environmental impact statements (EISs), which are required by NEPA.

NRC Proposed Decommissioning Criteria for the WVDP. In October 1998 NRC staff issued the Decommissioning Criteria for West

Valley (SECY-98-251) for the NRC Commissioners to review. The NRC hosted a public meeting on January 12, 1999 for representatives from the NRC staff, the DOE, NYSERDA, and the West Valley Citizen Task Force to brief the Commissioners on various issues before they made a decision. As a result, the Commissioners requested that the NRC staff examine the statutory limitations (i.e., authority, obligations, and limitations under the WVDP Act) of NRC involvement at West Valley and to supplement the SECY paper with an expanded discussion of the options for the manner and timing of NRC final criteria for decontamination and decommissioning. On February 23, 1999, NRC staff published SECY-99-057, Supplement to SECY-98-251, Decommissioning Criteria for West Valley, which provides the additional information requested by the commissioners.

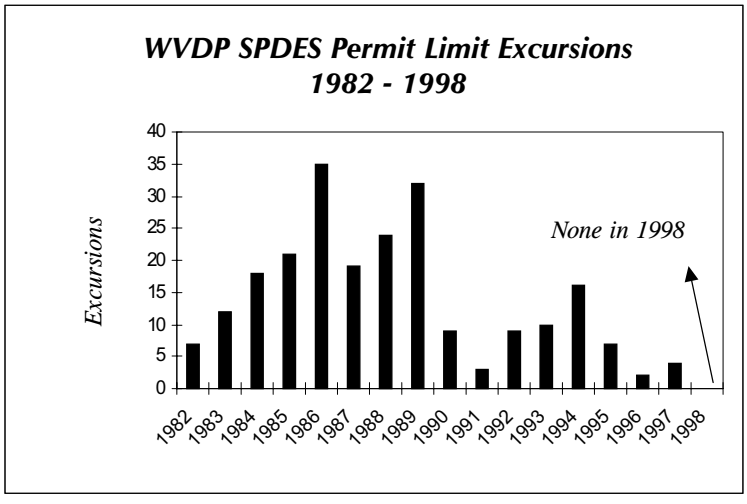
Clean Water Action Plan Initiatives at the WVDP. The 1998 Clean Water Action Plan (CWAP) charts a new course for protecting and restoring our nation's waterways, emphasizing collaborative strategies for communities and the watersheds that sustain them. For the past year, nine federal agencies have been working together to carry out the key actions in the Clean Water Action Plan and to assist state and local groups with their watershed work.

A Water Task Team, formed in February 1995, consists of WVDP personnel with expertise in wastewater engineering, treatment plant operation and process monitoring, and NPDES/SPDES permitting and compliance. See SPDES Permit Limit Exceedances in Chapter 1 (p.1-14).

As shown in the accompanying chart (*this page*), the annual number of exceptions to the numerical discharge limits specified in the site's SPDES permit have been substantially reduced, especially when compared to the peak of thirty-five exceptions noted in 1986. Calendar year 1998 is the first year since 1982, when the DOE began operating the Project, that no exceptions were reported.

SPDES Permit Renewal. On July 17, 1998 the WVDP filed an application with NYSDEC for administrative renewal of the site SPDES permit, which expired on February 1, 1999. On September 11, 1998, NYSDEC issued the renewed SPDES permit, which became effective on February 1, 1999 and expires February 1, 2004.

Storm Water Discharge Permit Application. Precipitation can become contaminated with pollutants from industrial process facilities, material storage and handling areas, access roads, or vehicle parking areas. To protect the environment, aquatic resources, and public health, Section 402(p) of the CWA requires that a storm water discharge permit application containing facility-specific information be submitted to the permitting authority. NYSDEC, the permitting authority in New York State, uses this information to ascertain the potential for pollution from storm water collection and discharge systems and to determine appropriate permitting requirements. The WVDP is expecting SPDES permit modifications in 1999 that encompass storm water and the flow increase associated with the north plateau groundwater recovery system.



Petroleum-Spill Reporting/Underground Storage Tanks Program. In October 1997 petroleum-contaminated soils were encountered at the bottom of an underground storage tank excavation, and the appropriate regulatory agencies were notified. It was presumed that the leak had occurred before 1985 when the tank had been decommissioned by filling it with concrete. The final report on results of a field investigation to determine the lateral and vertical extent of the petroleum-contaminated soils, completed in February 1998, confirmed that petroleum contamination was limited to the area around the former tank.

A second field investigation in October 1998 collected information to be used to evaluate in situ alternatives for remediating the contaminated soil. On March 19, 1999 the DOE and NYSDEC executed a Stipulation Pursuant to Section 17-0303 of the Environmental Conservation Law and Section 176 of the Navigation Law for cleanup and removal of the petroleum contaminants. Remedial plans, including a soil-venting system, are currently being designed. Construction is expected to begin in mid-1999.

Flood Protection: Water Supply Dam Inspection. On September 22, 1998 NYSDEC performed its periodic four-year inspection of the site's two water supply reservoir dams and the emergency spillway located at the WNYNSC. The inspection, which included a walkdown of the downstream slopes of the dams, the emergency spillway, and outlets, focused on verifying proper maintenance and on detecting ground disruptions such as erosion or slumping that could affect the structural integrity of the impoundments.

Dam #2 and the emergency spillway were found to be satisfactorily maintained. However, an area of displaced soil a few feet thick extending approximately 100 feet down the slope of dam #1 was observed. The slumping was attributed to a failed section of an access road directly upgradient of the displaced soil. NYSDEC was informed of the WVDP's repair and restoration plan, which included relocation of that section of the roadway, removal of associated piers and rock baskets, diversion of the road underdrain, installation of silt fencing, and final reseeding of the disturbed area. NYSDEC concurred with the plans and confirmed that these activities constituted routine maintenance and did not require a permit under the Protection of Waters program for dams and impoundment structures (6 NYCRR Part 608.3).

Closed Landfill Maintenance. Closure of the on-site nonradioactive construction and demolition debris landfill (CDDL) was completed in August 1986. The landfill area was closed in accordance with NYSDEC requirements for this type of landfill, following a closure plan (Standish 1985) approved by NYSDEC. To meet routine post-closure requirements, the CDDL cover was inspected twice in 1998 and found to be in generally good condition. The grass cover on the clay and soil cap is routinely maintained and cut, and drainage is maintained to ensure that no obvious ponding or soil erosion occurs.

Project Assessment Activities in 1998

As the primary contractor for the DOE at the WVDP, WVNS maintains a comprehensive review program for proposed and ongoing operations. Assessments are conducted through formal surveillances and an informal "walk and talk" program. Formal surveillances ensure compliance with regulations, directives, and DOE Orders. The "walk and talk" program is used to identify issues or potential problems that can be corrected on the spot.

The local DOE Project office also independently reviews various aspects of the environmental program, and in 1998 overall results of the reviews reflected continuing, well-managed environmental programs at the WVDP.

Significant external environmental overview activities in 1998 included an inspection by NYSDEC and the EPA for compliance with RCRA; an inspection by NYSDEC for compliance with SPDES requirements; an inspection of the water supply reservoir dams and the water supply emergency spillway; and an annual inspection of the WVDP potable water supply system by the Cattaraugus County Health Department. These inspections did not identify any environmental program findings and further demonstrated the WVDP's commitment to protection of the environment.

During 1998 the DOE reviewed the WVDP EMS and ISMS procedures. The Project subsequently received verification of its enhanced work planning (EWP) and ISMS programs from the DOE Ohio Field Office.

Hardware and software used in the environmental monitoring program were assessed for year-2000 compliance. Included in the assessment were the meteorological system, water samplers, air samplers, radiological counting instruments, emergency response equipment, laboratory and field equipment and instruments, and data management and reporting systems. A schedule for completing corrective actions was developed and implemented so that all systems will be year-2000 compliant in 1999.